

SCIENCE.

FRIDAY, NOVEMBER 6, 1885.

COMMENT AND CRITICISM.

THE SCHOOL OF INSTRUCTION of the signal service at Fort Myer has been the scene of occurrences which show in a strong light the incongruity of having the weather service under military control. Some years since, General Hazen made known his desire to have educated young men, especially college graduates, enter the signal service as privates; and, under the promise of good treatment, he seems to have been quite successful in recruiting his corps from this class. The recruits are, however, required to learn the drill and duties of the common soldier. In this branch of their education, the class now under instruction proved so inapt that the drill-officer lost his patience and his temper, and expressed his sentiments in language unfit for ears more polite than those of the mules on the plains. The aggrieved young men wrote a letter of complaint to the chief signal officer, and for this offence they were promptly brought before a court-martial. The trial has been concluded, but the result has not yet been made known.

The case is instructive as showing the wide divergence between military discipline and common sense. While the young men were tried by court-martial, the officer whose ungentlemanly conduct caused the trouble was let off by what General Hazen is pleased to call a reprimand, but which was nothing more than a letter calling his attention to a certain paragraph in the army regulations. We can hardly suppose that this letter would seriously disturb the equanimity of an officer of the breeding indicated by the language of the offending lieutenant. Common sense would have dictated the trial of the officer by court-martial, and the reprimand of the men whose offence, as General Hazen himself says, was only that of going about a right act in a wrong way. We may admit that the chief signal officer knows best how so purely technical an offence against military discipline should be dealt with in army practice; but this only emphasizes the deviation of that practice from common sense when applied to a civil service like that of the weather bureau.

IN THE ANNUAL REPORT of the chief signal officer, just issued, it is claimed that meteorological work depends upon an accurate and continuous record, and that to get these conditions the observers must be held with an absolute control, which makes a military organization indispensable. It is further stated that the gathering of these observations is traditionally military work, and that "all that is of much value has been done under some form of military organization." While not wishing to disparage the faithfulness of the meteorological records of our own army surgeons, which are referred to as among the earliest, we think it must be acknowledged that the aimless records of temperature and barometric pressure of the past were made by those having much spare time upon their hands, whether surgeons at army posts or civilians. But meteorology is not a mere question of gathering records of observations. These records must be discussed, and the truths hidden in these masses of figures must be revealed, before any true science exists. We find that this need is recognized by the Army signal service, and that Professors Ferrel, Abbe, Trowbridge, Rowland, Pickering, Mendenhall, Wright, not to mention other younger men, and all civilians, have been employed as a 'study division' to improve the methods of taking observations and the instruments used, to prepare text-books on meteorology and meteorological instruments for the use of the service; in fact, to direct the whole work of the bureau. We do not forget the officers of the army who have done good work for the service and for science, but merely wish to call attention once more to the fact that the proportion of men fitted to conduct scientific work is small, and no larger among army officers than among civilians. There is, moreover, no evident connection between predicting the coming of a killing frost which will destroy the last of a growing cotton crop, a matter treated of in the latter part of the report, and skill in laying a field telegraph line, military signalling or drill, to which are devoted the opening pages. It is inevitable that the larger portion of the leaders of the service must be civilians. The work of the service is done for the benefit of commerce and agriculture, and it is in-

congruous that it should be in the hands of army officers.

WE NOTICE WITH MUCH PLEASURE the election of Prof. E. S. Holden to be president of the university of California, and director of the Lick observatory. Professor Holden's resignation as director of the Washburn observatory at Madison, Wis., takes effect on the 1st of January next. His appointment as director of the Lick observatory will hardly be a matter of surprise to those who are aware that, as consulting astronomer, he has virtually had the direction of the work as it has progressed, visiting the site on Mount Hamilton in 1881, and again in 1883 and 1884. Very happily the choice both of the Lick trustees and of the regents of the university has fallen upon Professor Holden. It is understood that in his letter of resignation to the regents of the university of Wisconsin, he strongly urges the name of Prof. W. A. Rogers, of Harvard college observatory, as his successor.

THE CREATION OF A NEW CHAIR of psychology at the Sorbonne, and the instalment therein of M. Th. Ribot, editor of the *Revue philosophique*, as professor, marks a new epoch in the relation of the university to philosophy in France, and is a most gratifying proof of the way in which the world moves. Safe opinions and literary smoothness have, for almost as long as any one now can remember, been stronger passports to French philosophic professorships than either learning or originality. But the renewal of the science of human nature by the physiologists, pathologists, and evolutionary anthropologists of this day and generation, has brought too great a mass of new facts with it, and of new conjectures, for any barriers to stand. They must be let in somehow, and officially taught and discussed, if the official teaching is not to appear ignorant and antiquated. The Ministry of public instruction has wisely seen this, and has had the sagacity to choose for the new professor the man who has done most to introduce the new ideas to his countrymen. M. Ribot's place at the head of the *Revue philosophique* is, to be sure, more important than any professorship; and a professorship would be but a faint reward for the service he has done to French philosophy by his admirable management of that periodical. But the two functions do not exclude each other, and we wish M. Ribot health and strength for a long career in both.

THERE IS NO GEOGRAPHER, biologist, or ethnologist, probably no statesman, on the other side of the Atlantic, to whom the name of Justus Perthes is not full of meaning. It is not merely that the house has helped, by its publications, each in his profession. It is not only because, of all geographical chart-work, theirs is pre-eminently the most delicate, the most reliable, the most artistic in the taste with which colors are used. It is rather because to the operations of a firm of means, business ability, and pride in furthering geographical science, have been added the efforts of a succession of geographers who stood second to none in their specialties, and whose ambition was not merely pecuniary or personal. The founder of this house, Johann Georg Justus Perthes, was the son of the physician to the Prince of Rudolstadt, and was born September 11, 1749. He engaged in a commercial enterprise, out of which, in September, 1785, the establishment at Gotha originated. Since then, after the death of the founder, the business has been carried on by Wilhelm (1816-1853), Bernhardt (1853-1857), and by Adolf Muller and Rudolf Besser, on behalf of a posthumous son of Bernhardt Perthes and others interested, nearly to the present time. In September last the centenary of the establishment was celebrated, and a jubilee-volume, elegantly printed, and illustrated with portraits of the firm and its chief collaborators, has been distributed to its associates and friends. This volume contains a brief history of the firm, of its connection with geographical literature, with geographers, and with explorers. The part it has played in these matters redounds to the honor of all concerned. A table showing the present organization is appended. It is unnecessary to go into details with which most of our readers are more or less familiar already. It is sufficient to say that a house to which we owe the works of Berghaus, Stieler, Petermann, Spruner, Behm, and their associates, must be counted among the ornaments of the German fatherland and the efficient forces of civilization.

PASTEUR AND HYDROPHOBIA.

THE recent communication of M. Pasteur to the Academy of sciences, upon the prevention of hydrophobia by inoculation, has naturally aroused great interest among the general public as well as in the scientific world. The methods and results of his experiments upon this subject have not yet been published with sufficient detail to justify any